PHN INTERNSHIP TASK 4

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<u>Qusetion</u>: Develop an Android application that maintains a list of students' names. The app should have a switch button that controls the search functionality. When the switch is turned on, the user should be able to search for a student's name using a search box located at the top of the screen. On the other hand, if the switch is turned off, the search box should be disabled and not be functional.

Additionally, the app should allow users to add and delete students from the list. When the user adds a student, they should be prompted to enter the student's name and any relevant information such as their email, phone number, or address. When a user deletes a student, they should be prompted to confirm the action before the student's information is removed from the list. Finally, the app should provide an option for users to export the list of students as a CSV file, which can be shared with others via email or other means. The exported file should contain all of the student's information, including their name, email, phone number, and address, if available.

Code:-

Main Activity:-

```
import androidx.appcompat.app.AppCompatActivity;
import android.annotation.SuppressLint;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.CompoundButton;
import android.widget.ListView;
import android.widget.SearchView;
import android.widget.Sexibliew;
import android.widget.Sexibliew;
import android.widget.Sexibliew;
import com.google.android.material.floatingactionbutton.FloatingActionButton;
import java.util.Arrays;
```

```
import java.util.List;
    SearchView searchView;
   Switch aSwitch;
   FloatingActionButton addBtton;
   FloatingActionButton deleteBtn;
    List<String> nameData=holder.getData();
   @SuppressLint("MissingInflatedId")
        setContentView(R.layout.activity main);
        listView=findViewById(R.id.myList);
        searchView=findViewById(R.id.search);
        searchView.setVisibility(View.INVISIBLE);
        addBtton=findViewById(R.id.addBtn);
        deleteBtn=findViewById(R.id.btnDelete);
        saveBtn=findViewById(R.id.btnSaveCsv);
        ArrayAdapter<String> adapter=new ArrayAdapter<>>(getApplicationContext(),
android.R.layout.simple_list_item_1, nameData);
        listView.setAdapter(adapter);
            public void onItemClick(AdapterView<?> parent, View view, int position,
        aSwitch=findViewById(R.id.switch1);
                adapter.getFilter().filter(query);
        aSwitch.setOnCheckedChangeListener(new
                if(!isChecked) {
                    searchView.setVisibility(View.INVISIBLE);
                    searchView.setVisibility(View.VISIBLE);
        addBtton.setOnClickListener(new View.OnClickListener() {
```

Activity_main.xml:-

```
android:id="@+id/myList"
android:layout_width="match_parent"
android:layout_height="wrap_content"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintLeft_toLeftOf="parent"
app:layout_constraintRight_toRightOf="parent"
app:layout constraintTop toBottomOf="@id/linear"
app:layout_constraintVertical bias="0.0" />
android:id="@+id/addBtn"
android:layout height="wrap content"
android:clickable="true"
app:layout constraintBottom toBottomOf="parent"
app:layout constraintEnd toEndOf="parent"
app:layout constraintHorizontal bias="0.157"
app:layout_constraintVertical bias="0.9"
app:maxImageSize="50dp"
app:srcCompat="@android:drawable/ic input add" />
android:id="@+id/btnDelete"
android:layout width="wrap content"
android:layout height="wrap content"
android:backgroundTint="@color/white"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.498"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical bias="0.9"
app:maxImageSize="35dp"
app:srcCompat="@android:drawable/ic menu delete" />
android:id="@+id/btnSaveCsv"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:clickable="true"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.85"
app:layout
app:layout_constraintTop_toTopOf="parent"
app:maxImageSize="35dp"
app:srcCompat="@android:drawable/ic menu save" />
```

addActivity.java:-

```
package com.example.phninternshiptask4;
 class addActivity extends AppCompatActivity {
    EditText Name;
    EditText phone;
    Button save;
    @SuppressLint("MissingInflatedId")
        setContentView(R.layout.activity_addactivity);
        save=findViewById(R.id.btnSave1);
        Name=findViewById(R.id.txtName);
        email=findViewById(R.id.txtEmail);
        phone=findViewById(R.id.txtPhone);
        dataholder holder=new dataholder();
        save.setOnClickListener(new View.OnClickListener() {
                String newName=Name.getText()+"";
                String newPhone=phone.getText()+"";
                if(!newName.equals("") && !newEmail.equals("") &&
                    holder.setData(newName, newEmail, newPhone);
Toast.LENGTH SHORT) .show();
                    Toast.makeText(addActivity.this, "Data is Missing",
Toast. LENGTH SHORT) . show();
```

activity_addactivity.xml:-

```
android:layout_width="match_parent"
android:layout height="match parent"
tools:context=".addActivity">
    android:id="@+id/txtName"
    android:layout_height="wrap content"
    android:inputType="textPersonName"
    android:hint="Name"
    app:layout constraintBottom toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
    app:layout constraintVertical bias="0.185" />
    android:id="@+id/btnSave1"
    android:layout height="wrap_content"
    android:text="Save"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintHorizontal_bias="0.5"
app:layout_constraintStart_toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.55" />
    android:id="@+id/txtEmail"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:hint="e-Mail"
    android:inputType="textEmailAddress"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd toEndOf="parent"
    app:layout constraintHorizontal bias="0.497"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.309" />
    android:id="@+id/txtPhone"
    android:layout_width="wrap_content"
android:layout_height="wrap_content"
    android:inputType="phone"
    android:hint="Phone No."
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout
    app:layout_constraintStart_toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout_constraintVertical bias="0.451" />
```

Dataholder.java:-

```
package com.example.phninternshiptask4;
import android.widget.Toast;
```

```
private static boolean setOnce=false;
    if(setOnce==false) {
        name.add("Emma");
        name.add("Michael");
        name.add("David");
        name.add("Olivia");
         name.add("Daniel");
        name.add("Ava");
         email.add("user1@example.com");
         email.add("user3@hotmail.com");
         email.add("user4@yahoo.com");
         email.add("user6@live.com");
         email.add("user8@icloud.com");
         email.add("user9@protonmail.com");
        number.add("+91 1234567890");
number.add("+91 9876543210");
        number.add("+91 9988776655");
        number.add("+91 1122334455");
        number.add("+91 9876543210");
number.add("+91 9998887776");
number.add("+91 8887776665");
        number.add("+91 6665554443");
        number.add("+91 5554443332");
         number.add("+91 4443332221");
    setOnce=true;
public void setData(String newName ,String newEmail,String newNumber) {
    number.add(newNumber);
         email.remove(ind);
        number.remove(ind);
```

```
}
public String getEmail(int ind) {
    return email.get(ind);
}public String getPhone(int ind) {
    return number.get(ind);
}

public List<String> getData() {
    return name;
}

public List<String> getEmailData() {
    return email;
}

public List<String> getEmailData() {
    return email;
}
```

activity dataholder.xml:-

deleteActivity.java:-

```
import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;

import android.annotation.SuppressLint;
import android.content.DialogInterface;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class deleteActivity extends AppCompatActivity {
    EditText newName;
    Button deleteBtn;
    @SuppressLint("MissingInflatedId")
    @Override
    protected void onCreate(Bundle savedInstanceState);
    setContentView(R.layout.activity_delete);
    deleteBtn=findViewById(R.id.secondDelete);
    newName=findViewById(R.id.secondDelete);
    newName=findViewById(R.id.deleteName);
```

```
deleteBtn.setOnClickListener(new View.OnClickListener() {
                String name=newName.getText()+"";
                if(!name.equals("")) {
                    showAlert(name);
Toast. LENGTH SHORT) . show();
        AlertDialog.Builder builder=new AlertDialog.Builder(this);
        builder.setTitle("Alert");
        builder.setPositiveButton("Yes", new DialogInterface.OnClickListener() {
                dataholder holder=new dataholder();
                boolean ans=holder.delete(stud);
                if(ans){
Toast.LENGTH SHORT) .show();
Toast.LENGTH SHORT) .show();
        builder.setNegativeButton("No", new DialogInterface.OnClickListener() {
Toast.LENGTH SHORT) .show();
        AlertDialog alertDialog= builder.create();
        alertDialog.show();
```

activity delete.xml:-

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"</pre>
```

```
tools:context=".deleteActivity">

<EditText
    android:id="@+id/deleteName"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="textPersonName"
    android:hint="Name"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    android:id="@+id/secondDelete"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Delete"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.498"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.483" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

saveActivity.java:-

```
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import androidx.core.content.ContextCompat;
import android.Manifest;
import android.annotation.SuppressLint;
import android.content.Context;
import android.content.context;
import android.content.pm.PackageManager;
import android.os.Environment;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
import java.io.File;
import java.io.FileWriter;
import java.io.IoException;
import java.io.OutputStreamWriter;
import java.io.UbutStreamWriter;
import java.util.ArrayList;
import java.util.Arrays;
import java.util.List;

public class saveActivity extends AppCompatActivity {
    EditText fileName;
    Button saveIng;
    private static final int PERMISSION_REQUEST_CODE = 1;
    public static boolean flag=false;
```

```
protected void onCreate(Bundle savedInstanceState) {
        setContentView(R.layout.activity save);
        fileName=findViewById(R.id.txtSaveing);
        saveIng=findViewById(R.id.btnSaving);
Manifest.permission. WRITE EXTERNAL STORAGE)
                != PackageManager. PERMISSION GRANTED) {
                    new String[]{Manifest.permission.WRITE EXTERNAL STORAGE},
                    PERMISSION REQUEST CODE);
            flag=true;
                    String fName=fileName.getText()+"";
                        createAndSaveCSV(fName);
Toast. LENGTH SHORT) . show();
        if (requestCode == PERMISSION REQUEST CODE) {
            if (grantResults.length > 0 && grantResults[0] ==
PackageManager.PERMISSION_GRANTED) {
                flag=true;
                        Toast.LENGTH SHORT) .show();
        dataholder holder=new dataholder();
        List<String> column3 = holder.getNumberData();
```

activity_save.xml:-

```
<?xml version="1.0" encoding="utf-8"?>
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout width="match parent"
    android:layout_height="match_parent"
tools:context=".saveActivity">
         android:id="@+id/txtSaveing"
         android:layout_height="wrap content"
         android:hint="csv file name"
         app:layout_constraintBottom toBottomOf="parent"
         app:layout_constraintEnd_toEndOf="parent"
         app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
         app:layout_constraintVertical bias="0.31" />
         android:id="@+id/btnSaving"
         android:layout_width="wrap_content"
android:layout_height="wrap_content"
         android:text="Save"
         app:layout_constraintBottom_toBottomOf="parent"
         app:layout constraintStart toStartOf="parent"
```

```
app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

studentDetail.java:-

```
package com.example.phninternshiptask4;
import androidx.appcompat.app.AppCompatActivity;
import android.annotation.SuppressLint;
import android.content.Intent;
import android.os.Bundle;
import android.os.Bundle;
import android.widget.TextView;
import android.widget.TextView;
import android.widget.Toast;

public class studentDetail extends AppCompatActivity {
    TextView name, email, phone;

    @SuppressLint({"SetTextI18n", "MissingInflatedId"})
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_student_detail);
        name =findViewById(R.id.textView);
        email=findViewById(R.id.textView4);
        Intent i=getIntent();
        int ind=i.getIntExtra("index",-1);
        dataholder holder=new dataholder();
        name.setText(name.getText()+" "+holder.getName(ind));
        email.setText(email.getText()+" "+holder.getPhone(ind));
    }
}
```

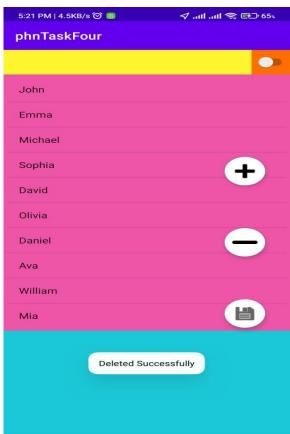
activity student detail.xml:-

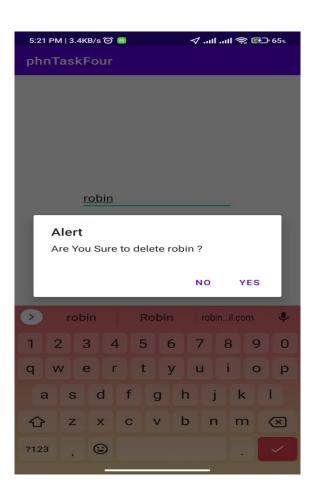
```
<?xml version="1.0" encoding="utf-8"?>
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout width="match parent"
    android:layout_height="match_parent"
    tools:context=".studentDetail">
        android:id="@+id/textView"
        android:layout width="wrap content"
        android: layout height="wrap content"
        android:text="Name : "
        android:textStyle="bold"
        android:textColor="@color/black"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.1"
app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout constraintVertical bias="0.15"
```

```
android:id="@+id/textView2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Email : "
android:textSize="25sp"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.1"
app:layout constraintStart toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical bias="0.3" />
android:id="@+id/textView4"
android: layout height="wrap content"
android:text="Phone No : "
android:textColor="@color/black"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.1"
app:layout_constraintStart_toStartOf="parent"
app:layout constraintTop toTopOf="parent"
app:layout_constraintVertical bias="0.45" />
android:layout width="wrap content"
android:layout height="wrap content"
android:src="@drawable/student"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintLeft_toLeftOf="parent"
app:layout_constraintRight_toRightOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout constraintVertical bias="1.0" />
```

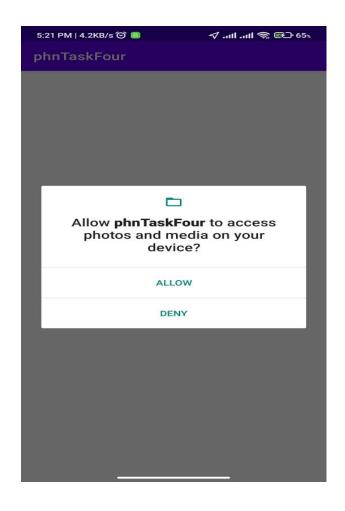
Screenshots:-

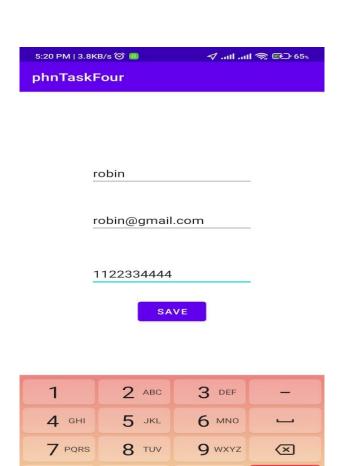












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